CONTENTS OF VOLUME 37

Vol. 37 No. 1 September 1997

Special Issue

CLIMATE CHANGE AND WATER RESOURCES PLANNING CRITERIA

Guest Editors
KENNETH D. FREDERICK, DAVID C. MAJOR and EUGENE Z. STAKHIV

INTRODUCTION

KENNETH D. FREDERICK, DAVID C. MAJOR and EUGENE Z. STAKHIV / Introduction 1–5

KENNETH D. FREDERICK and DAVID C. MAJOR / Climate Change and Water Resources 7–23

DAVID C. MAJOR and KENNETH D. FREDERICK / Water Resources Planning and Climate Change Assessment Methods 25–40

ISSUE ASSESSMENTS

ROBERT C. LIND / Intertemporal Equity, Discounting, and Economic Efficiency in Water Policy Evaluation 41–62

HARRY F. LINS, DAVID M. WOLOCK and GREGORY J. McCABE / Scale and Modeling Issues in Water Resources Planning 63–88

NICHOLAS C. MATALAS / Stochastic Hydrology in the Context of Climate Change 89–101

EUGENE Z. STAKHIV and DAVID C. MAJOR / Ecosystem Evaluation, Climate Change and Water Resources Planning 103–120

K.E. McCONNELL / Nonmarket Valuation and the Estimation of Damages from Global Warming 121–139

KENNETH D. FREDERICK / Adapting to Climate Impacts on the Supply and Demand for Water 141–156

APPLICATIONS AND CASE STUDIES

JOHN J. BOLAND / Assessing Urban Water Use and the Role of Water Conservation Measures under Climate Uncertainty 157–176

BENJAMIN F. HOBBS, PHILIP T. CHAO and BODDU N. VENKATESH / Using Decision Analysis to Include Climate Change in Water Resources Decision Making 177–202

ANDREW W. WOOD, DENNIS P. LETTENMAIER and RICHARD N. PALMER / Assessing Climate Change Implications for Water Resources Planning 203–228

PETER ROGERS / Engineering Design and Uncertainties Related to Climate Change 229–242

GARY YOHE and JAMES NEUMANN / Planning for Sea Level Rise and Shore Protection under Climate Uncertainty 243–270

ROBERT MENDELSOHN and LYNNE L. BENNETT / Global Warming and Water Management: Water Allocation and Project Evaluation 271–290

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

KENNETH D. FREDERICK, DAVID C. MAJOR and EUGENE Z. STAKHIV / Water Resources Planning Principles and Evaluation Criteria for Climate Change: Summary and Conclusions 291–313

Vol. 37 No. 2 October 1997

Special Theme

ECONOMIC DISCOUNTING IN THE CLIMATE POLICY CONTEXT

WILLIAM D. NORDHAUS / Discounting in Economics and Climate Change. *An Editorial Comment* 315–328

PETER G. BROWN / Stewardship of Climate. *An Editorial Comment* 329–334

GEOFFREY HEAL / Discounting and Climate Change. *An Editorial Comment* 335–343

K. HASSELMANN, S. HASSELMANN, R. GIERING, V. OCANA and H. v. STORCH / Sensitivity Study of Optimal CO_2 Emission Paths Using a Simplified Structural Integrated Assessment Model (SIAM) 345–386

****

CURT COVEY and MARTIN I. HOFFERT / The Sun-Climate Connection: A Challenge to Conventional Wisdom? *An Editorial Essay* 387–390

GEORGE C. REID / Solar Forcing of Global Climate Change Since the Mid-17th Century 391–405

DAVID M. LIVINGSTONE / Break-Up Dates of Alpine Lakes as Proxy Data for Local and Regional Mean Surface Air Temperatures 407–439

Book Review

Rudolf Geiger, Robert H. Aron, and Paul Todhunter, *The Climate Near the Ground* (DENNIS BALDOCCHI) 441–442

Vol. 37 No. 3 November 1997

LINDA O. MEARNS / On the Statistical Evaluation of Climate Model Experiments. *An Editorial Comment* 443–448

GORDON B. BONAN / Effects of Land Use on the Climate of the United States 449–486

PIETER P. TANS / The CO_2 Lifetime Concept Should be Banished. *An Editorial Comment* 487–490

BRIAN C. O'NEILL, MICHAEL OPPENHEIMER and STUART R. GAFFIN / Measuring Time in the Greenhouse. *An Editorial Essay* 491–503

A.M.G. KLEIN TANK and G.P. KÖNNEN / Simple Temperature Scenario for a Gulf Stream Induced Climate Change 505–512

P. ALPERT, H. SHAFIR and D. ISSAHARY / Recent Changes in the Climate at the Dead Sea – A Preliminary Study 513–537

OLLI VARIS and SAKARI KUIKKA / BeNe-EIA: A Bayesian Approach to Expert Judgment Elicitation with Case Studies on Climate Change Impacts on Surface Waters 539–563

Book Reviews

Kathryn Phillips, *Tracking the Vanishing Frogs* (CYNTHIA CAREY) 565–567

G.R. Carmichael, G.E. Folk and J.L. Schnoor (eds.), *Preparing for Global Change: A Midwestern Perspective*, in H. Lieth (series ed.), *Progress in Biometeorology*, Vol. 9 (WAYNE M. WENDLAND) 569–573

Vol. 37 No. 4 December 1997

LAURA L. KLETTI and HEINZ G. STEFAN / Correlations of Climate and Streamflow in Three Minnesota Streams 575–600

AONDOVER TARHULE and MING-KO WOO / Towards an Interpretation of Historical Droughts in Northern Nigeria 601–616

S.E. STAMMERJOHN and R.C. SMITH / Opposing Southern Ocean Climate Patterns as Revealed by Trends in Regional Sea Ice Coverage 617–639

TAMARA SHAPIRO LEDLEY and STEPHANIE PFIRMAN / The Impact of Sediment-Laden Snow and Sea Ice in the Arctic on Climate 641–664

INÉS CAMILLONI and VICENTE BARROS / On the Urban Heat Island Effect Dependence on Temperature Trends 665–681

SEPPO KELLOMÄKI, HANNU VÄISÄNEN and TANELI KOLSTRÖM / Model Computations on the Effects of Elevating Temperature and Atmospheric CO_2 on the Regeneration of Scots Pine at the Timber Line in Finland 683–708

Volume Contents 709–711

Author Index 713